



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/552,371

02/10/2006

Hiroshi Yahata

2005-1603A

7254

52349

7590

10/15/2008

WENDEROTH, LIND & PONACK L.L.P.

2033 K. STREET, NW

SUITE 800

WASHINGTON, DC 20006

EXAMINER

DANG, HUNG Q

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

10/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,371	Applicant(s) YAHATA ET AL.	
	Examiner Hung Q. Dang	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 07/29/2008 have been considered but are moot in view of the new ground(s) of rejection.

At page 5, Applicant makes a request that the provisional obviousness-type double patenting rejections be held in abeyance. In response, the Examiner acknowledges Applicant's request but is continuing to make the provisional double-patenting rejections since there are still conflicting claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 6 and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2 and 3 of copending Application No. 11/594,161 in view of Morris (US Patent 6,873,629).

Claim 6 of this application recites an information recording apparatus for encoding video information and audio information to a system stream and recording the system stream to a recording medium, wherein: the system stream being allowed to have a first format (TS) and a second format (PS); the information recording apparatus comprising: a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate a video elementary stream and an audio elementary stream; a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS); and a control section operable to control the first encoding section and the second encoding section; wherein the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); the control section controls the first and second encoding sections so that each encoding is done according to the constrained format, the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segmented in packs, and the pack is larger than the first packet in size; the first packet stores segmented data of a second packet, the second packets stores video information or audio information, the second packet storing the audio information including at least one audio frame, and

according to the constrained format, a predetermined number of first packets including either the video information or the audio information are grouped and managed as a multiplexing unit, and a total payload data size of first packets managed in the multiplexing unit is smaller than a payload data size of the pack, the multiplexing unit is a processing unit to convert the first format (TS) to the second format (PS), and a first one of complete audio frames in the multiplexing unit including only the audio information is a first one of audio frames in a payload of the second packet; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Claim 2 of Application No. 11/594161 recites an information recording apparatus for encoding video information and audio information to system stream and recording the system stream to a recoding medium, wherein: the system stream being allowed to have a first format (TS) and a second format (PS); the information recording apparatus comprising: a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate video elementary stream and audio elementary stream; a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS); a control section operable to control the first encoding section and the second encoding section; the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); wherein the control section controls the first and second encoding section

so that each encoding is done according to the constrained format, and the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segmented in packs, the pack is larger than the first packet in size; the first packet stores segmented second packet, the second packets stores video information and audio information and includes at least one audio frame, according to the constrained format, a predetermined number of first packets are grouped and managed as a multiplexing unit, and total data size of first packets managed in the multiplexing unit is smaller than data size of the pack, and the first one of complete audio frames in the multiplexing unit is the first one of audio frames in a payload of the second packet. It is also recognized by one of ordinary skill in the art that the multiplexing unit is a processing unit to convert the first format to the second format.

Claim 2 of Application No. 11/594161 does not recite the predetermined number of first packets including either the video information or the audio information; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Morris discloses first packets including either the video information or the audio information (column 1, lines 11-18; column 6, lines 1-6; Fig. 2); wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet (column 2, lines 1-15; column 5, line 64 – column 6, line 1).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the structure of the first packet, the first and second format, and the second packet disclosed by Morris into the apparatus recited in claim 2

of Application No. 11/594161 to make the apparatus compatible with the MPEG standard, which also allows the first packet, which is a pack, to have only one second elementary packet, which is either a video packet or an audio packet. The incorporated feature would make the apparatus also able to record this specific MPEG stream, thus, making it completely compatible with the standard.

Claim 11 of this application recites an information recording method including encoding video information and audio information to a system stream and recording the system stream to a recording medium, the system stream being allowed to have a first format (TS) and a second format (PS); the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segments in packs, and the pack is larger than the first packet in size; and the first packet stores segmented data of a second packet, and the second packet stores video information or audio information, the second packet storing the audio information including at least one audio frame; the information recording method comprising: encoding video information and audio information in a predetermined encoding method according to the constrained format (TS) to generate a video elementary stream and an audio elementary stream; performing system-encoding by multiplexing the video elementary stream and the audio elementary stream according to the constrained format (TS) to generate the system stream; and grouping and managing a predetermined number of first packets including either the video information or the audio information as a

multiplexing unit, wherein a total payload data size of the first packets managed in the multiplexing unit is smaller than a payload data size of the pack, the multiplexing unit being a processing unit to convert the first format (TS) to the second format (PS), and a first one of complete audio frames in the multiplexing unit is the a one of audio frames in a payload of the second packet; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Claim 3 of Application No. 11/594161 recites an information recording method including encoding video information and audio information to system stream and recording the system stream to a recording medium, the system stream being allowed to have a first format (TS) and a second format (PS); the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segments in packs, the pack is larger than the first packet in size; the first packet stores segmented second packet, the second packet stores the video information and audio information and includes at least one audio frame; the information recording method comprising: encoding video information and audio information in a predetermined encoding method according to the constrained format (TS) to generate video elementary stream and audio elementary stream; performing system-encoding by multiplexing the video elementary stream and the audio elementary stream according to the constrained format (TS) to generate the system stream; and grouping and managing a predetermined number of first packets as a multiplexing unit, wherein the total data

size of the first packets managed in the multiplexing unit is smaller than data size of the pack, and the first one of complete audio frames in the multiplexing unit is the first one of audio frames in a payload of the second packet. It is also recognized by one of ordinary skill in the art that the multiplexing unit is a processing unit to convert the first format to the second format.

Claim 3 of Application No. 11/594161 does not recite the predetermined number of first packets including either the video information or the audio information; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Morris discloses first packets including either the video information or the audio information (column 1, lines 11-18; column 6, lines 1-6; Fig. 2); wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet (column 2, lines 1-15; column 5, line 64 – column 6, line 1).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the structure of the first packet, the first and second format, and the second packet disclosed by Morris into the method recited in claim 2 of Application No. 11/594161 to make the apparatus compatible with the MPEG standard, which also allows the first packet, which is a pack, to have only one second elementary packet, which is either a video packet or an audio packet. The incorporated feature would make the apparatus also able to record this specific MPEG stream, thus, making it completely compatible with the standard.

This is a provisional obviousness-type double patenting rejection.

Claims 6 and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2 and 3 of copending Application No. 11/594,137 in view of Morris (US Patent 6,873,629).

Claim 6 of this application recites an information recording apparatus for encoding video information and audio information to a system stream and recording the system stream to a recording medium, wherein: the system stream being allowed to have a first format (TS) and a second format (PS); the information recording apparatus comprising: a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate a video elementary stream and an audio elementary stream; a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS); and a control section operable to control the first encoding section and the second encoding section; wherein the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); the control section controls the first and second encoding sections so that each encoding is done according to the constrained format, the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segmented in packs, and the pack is larger than the first packet in size; the first packet stores segmented data of a second packet, the second packets stores video information or audio information, the second packet storing the audio information including at least one audio frame, and

according to the constrained format, a predetermined number of first packets including either the video information or the audio information are grouped and managed as a multiplexing unit, and a total payload data size of first packets managed in the multiplexing unit is smaller than a payload data size of the pack, the multiplexing unit is a processing unit to convert the first format (TS) to the second format (PS), and a first one of complete audio frames in the multiplexing unit including only the audio information is a first one of audio frames in a payload of the second packet; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Claim 2 of Application No. 11/594137 recites an information recording apparatus for encoding video information and audio information to system stream and recording the system stream to a recoding medium, wherein: the system stream being allowed to have a first format (TS) and a second format (PS); the information recording apparatus comprising: a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format (TS) to generate video elementary stream and audio elementary stream; a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format (TS); a control section operable to control the first encoding section and the second encoding section; the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); wherein the control section controls the first and second encoding section

so that each encoding is done according to the constrained format, and the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segmented in packs, the pack is larger than the first packet in size; the first packet stores segmented second packet, the second packets stores video information and audio information and includes at least one audio frame, according to the constrained format, a predetermined number of first packets are grouped and managed as a multiplexing unit, and total data size of first packets managed in the multiplexing unit is smaller than data size of the pack, and the first one of complete audio frames in the multiplexing unit is the first one of audio frames in a payload of the second packet. It is also recognized by one of ordinary skill in the art that the multiplexing unit is a processing unit to convert the first format to the second format.

Claim 2 of Application No. 11/594137 does not recite the predetermined number of first packets including either the video information or the audio information; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Morris discloses first packets including either the video information or the audio information (column 1, lines 11-18; column 6, lines 1-6; Fig. 2); wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet (column 2, lines 1-15; column 5, line 64 – column 6, line 1).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the structure of the first packet, the first and second format, and the second packet disclosed by Morris into the apparatus recited in claim 2

of Application No. 11/594161 to make the apparatus compatible with the MPEG standard, which also allows the first packet, which is a pack, to have only one second elementary packet, which is either a video packet or an audio packet. The incorporated feature would make the apparatus also able to record this specific MPEG stream, thus, making it completely compatible with the standard.

Claim 11 of this application recites an information recording method including encoding video information and audio information to a system stream and recording the system stream to a recording medium, the system stream being allowed to have a first format (TS) and a second format (PS); the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segments in packs, and the pack is larger than the first packet in size; and the first packet stores segmented data of a second packet, and the second packet stores video information or audio information, the second packet storing the audio information including at least one audio frame; the information recording method comprising: encoding video information and audio information in a predetermined encoding method according to the constrained format (TS) to generate a video elementary stream and an audio elementary stream; performing system-encoding by multiplexing the video elementary stream and the audio elementary stream according to the constrained format (TS) to generate the system stream; and grouping and managing a predetermined number of first packets including either the video information or the audio information as a

multiplexing unit, wherein a total payload data size of the first packets managed in the multiplexing unit is smaller than a payload data size of the pack, the multiplexing unit being a processing unit to convert the first format (TS) to the second format (PS), and a first one of complete audio frames in the multiplexing unit is the a one of audio frames in a payload of the second packet; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Claim 3 of Application No. 11/594137 recites an information recording method including encoding video information and audio information to system stream and recording the system stream to a recording medium, the system stream being allowed to have a first format (TS) and a second format (PS); the first format (TS) is allowed to have a constrained format used for converting the system stream from the first format (TS) to the second format (PS); the first format (TS) has a structure for storing data segmented in first packets, the second format (PS) has a structure for storing data segments in packs, the pack is larger than the first packet in size; the first packet stores segmented second packet, the second packet stores the video information and audio information and includes at least one audio frame; the information recording method comprising: encoding video information and audio information in a predetermined encoding method according to the constrained format (TS) to generate video elementary stream and audio elementary stream; performing system-encoding by multiplexing the video elementary stream and the audio elementary stream according to the constrained format (TS) to generate the system stream; and grouping and managing a predetermined number of first packets as a multiplexing unit, wherein the total data

size of the first packets managed in the multiplexing unit is smaller than data size of the pack, and the first one of complete audio frames in the multiplexing unit is the first one of audio frames in a payload of the second packet. It is also recognized by one of ordinary skill in the art that the multiplexing unit is a processing unit to convert the first format to the second format.

Claim 3 of Application No. 11/594137 does not recite the predetermined number of first packets including either the video information or the audio information; wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet.

Morris discloses first packets including either the video information or the audio information (column 1, lines 11-18; column 6, lines 1-6; Fig. 2); wherein the first format is MPEG-TS, the second format is MPEG-PS, and the second packet is a PES packet (column 2, lines 1-15; column 5, line 64 – column 6, line 1).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the structure of the first packet, the first and second format, and the second packet disclosed by Morris into the method recited in claim 2 of Application No. 11/594161 to make the apparatus compatible with the MPEG standard, which also allows the first packet, which is a pack, to have only one second elementary packet, which is either a video packet or an audio packet. The incorporated feature would make the apparatus also able to record this specific MPEG stream, thus, making it completely compatible with the standard.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohiro et al. (US 2003/0170008), Morris (US Patent 6,873,629) and Imahashi et al. (US Patent 6,438,317).

Regarding claim 6, Ohiro et al. disclose an information recording apparatus for encoding video information and audio information to a system stream and recording the system stream to a recording medium ([0008]; [0050]; [0051]), the system stream being allowed to have a first format and a second format ([0008]; [0050]; [0051]); wherein the first format is MPEG-TS, the second format is MPEG-PS ([0008]; [0050]; [0051]).

However, Ohiro et al. do not disclose the information recording apparatus comprising: a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format to generate a video elementary stream and an audio elementary stream; a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to the first format; and a control section operable to control the first encoding section and the second encoding section, wherein the first format being allowed to have a constrained format used for converting the system stream from the first format to the

second format, the control section controls the first and second encoding sections so that each encoding is done according to the constrained format,.the first format has a structure for storing data segmented in first packets, the second format has a structure for storing data segmented in packs, and the pack is larger than the first packet is size, the first packet stores segmented data of a second packet, the second packets stores video information or audio information, the second packet storing the audio information including at least one audio frames, and according to the constrained format, a predetermined number of first packets including either the video information or the audio information are grouped and managed as a multiplexing unit, and a total payload data size of first packets managed in the multiplexing unit is smaller than a payload data size of the pack, the multiplexing unit is a processing unit to convert the first format to the second format, and a first one of complete audio frames in the multiplexing unit including only the audio information is a first one of audio frames in a payload of the second packet, wherein the second packet is a PES packet.

Imahashi et al. disclose a first encoding section operable to encode video information and audio information in a predetermined encoding manner according to the first format to generate a video elementary stream and an audio elementary stream (column 6, lines 1-25); a second encoding section operable to perform system-encoding by multiplexing the video elementary stream and the audio elementary stream to generate the system stream according to a first format (column 8, line 51 – column 9, line 3); and a control section operable to control the first encoding section and the second encoding section (“CPU 11” in Fig. 1; column 6, lines 1-25; column 8, line 51 –

column 9, line 3), wherein the control section controls the first and second encoding sections so that each encoding is done according to a constrained format ("CPU 11" in Fig. 1; column 6, lines 1-25; column 8, line 51 – column 9, line 3).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the encoding sections and control section disclosed by Imahashi et al. described above into the information recording apparatus disclosed by Ohiro et al. to generate an MPEG-transport stream from baseband video with time code attached to support editing at the receiving end when transmitted (Imahashi et al., column 1, lines 11-18, column 2, lines 51-62).

However, the proposed combination of Ohiro et al. and Imahashi et al. does not disclose the first format being allowed to have a constrained format used for converting the system stream from the first format to the second format, the first format has a structure for storing data segmented in first packets, the second format has a structure for storing data segmented in packs, and the pack is larger than the first packet is size, the first packet stores segmented data of a second packet, the second packets stores video information or audio information, the second packet storing the audio information including at least one audio frames, and according to the constrained format, a predetermined number of first packets including either the video information or the audio information are grouped and managed as a multiplexing unit, and a total payload data size of first packets managed in the multiplexing unit is smaller than a payload data size of the pack, the multiplexing unit is a processing unit to convert the first format to the second format, and a first one of complete audio frames in the multiplexing unit

including only the audio information is a first one of audio frames in a payload of the second packet, wherein the second packet is a PES packet.

Morris discloses the first format being allowed to have a constrained format used for converting the system stream from the first format to the second format (column 2, lines 1—column 3, line 10), the first format has a structure for storing data segmented in first packets (“T-PKT” in Fig. 2; column 5, lines 22-26), the second format has a structure for storing data segmented in packs (column 7, lines 18-24; “PACK” in Fig. 3), and the pack is larger than the first packet is size (column 3, lines 1-5), the first packet stores segmented data of a second packet (column 2, lines 4-8), the second packets stores video information or audio information (column 1, lines 11-18; column 6, lines 1-6; Fig. 2), the second packet storing the audio information including at least one audio frame (Fig. 2), and according to the constrained format, a predetermined number of first packets including either the video information or the audio information are grouped and managed as a multiplexing unit (column 2, lines 4-15; Fig. 2; column 5, lines 41-52), and a total payload data size of first packets managed in the multiplexing unit is smaller than a payload data size of the pack (column 3, lines 1-5), the multiplexing unit is a processing unit to convert the first format to the second format (column 3, lines 1-5; column 5, lines 41 - column 6, line 6), and a first one of complete audio frames in the multiplexing unit including only the audio information is a first one of audio frames in a payload of the second packet (*the multiplexing unit including only the audio information corresponds to the T-PKT with PID = ‘006’ in Fig. 2 and column 5, lines 41-52; the first one of complete audio frames in the multiplexing unit including only the audio*

information is the first one of complete audio frames in T-PKT with PID – ‘006’ in Fig. 2 and column 5, lines 41-52. Since a PES-PKT is aligned with DAT-0, which falls completely in a T-PKT, the first complete audio frame in the PES-PKT must be the first complete audio frame in T-PKT), wherein the second packet is a PES packet (column 2, lines 4-8; column 5, line 64 – column 6, line 1).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the constrained format, the first format, and second format disclosed by Morris into the information recording apparatus disclosed by of Ohiro et al. and Imahashi et al. to support conversion from the MPEG transport stream format to the MPEG program stream format for recording because, according Morris, MPEG program stream format offers advantages in recording (Morris, column 1, lines 12-29)

Claim 11 is rejected as discussed in claim 6 above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/
Examiner, Art Unit 2621

Application/Control Number:
10/552,371
Art Unit: 2621

Page 21

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621